

Continuation of Serial No. 09/966,460  
Preliminary Amdt. dated August 22, 2003, and  
Reply to Office action of May 22, 2003

REMARKS/ARGUMENTS

In the Specification, paragraph [0001] is amended to claim benefit of an earlier filed parent Nonprovisional application and Provisional application.

Claims 1-27 remain in the application. Claims 1, 2, 7, 9, 11-13 and 20 are amended.

Claims 14-19 and 24-27 are cancelled.

The following Remarks/Arguments are directed to the Office Action that was entered in the parent Nonprovisional application and mailed on May 22, 2003.

Claim Rejections Under 35 USC § 112

Claims 18, 20 and 27 were rejected under 35 USC § 112, first paragraph. Claims 18 and 27 are cancelled, whereby the rejection is made moot.

Claim 20 was rejected for matter added by amendment in the parent application. Relative to the rejected matter, claim 20 is presented in the present Continuation application as originally filed without the matter added by amendment in the parent application, whereby the rejection is made moot.

Claim Rejections Under 35 USC § 102

Claims 1-6, 17 and 19-26 were rejected in the parent application under 35 USC §102(b) as being anticipated by US Patent 4,306,210 to Saur.

The present as recited by currently amended Claim 1 is believed to be allowable over Saur, which teaches an “electrical switch assembly including two separate, temperature-dependent electrical switches, one of the electrical switches being substantially mechanically acting and the second of the electrical switches being a non-mechanical, solid-state switch.” See, Abstract.

A principal object of the Saur patent is to provide a temperature-responsive electrical switch containing at least two separate electrical circuits which may be independently switched on and off in dependence of the occurrence of different levels of temperature. Column 1, lines 25-30.

Thus, Saur teaches a single housing having a first mechanical electrical switch and a second semiconductor switch, there being separate electrical contact pins leading to each of the electrical switches. Column 1, lines 31-37.

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Accordingly, Saur teaches a first switch having a diaphragm 5 that is responsive to expansion of an extensible material 10 for closing an electrical contact, thereby providing a first electrical circuit defined by electrical communication established between a first pin 9' and the switch housing 1 which may be connected, for example, to ground. Column 2, line 49-column 3, line 35.

A second switch is provided by a temperature-dependent semiconductor element 31 that operates a second independent electrical circuit defined by electrical communication established between a second pin 9" and the housing 1. Column 3, lines 36-51.

The construction and function of the other embodiments of the second semiconductor switch 31, as taught by Saur, are all "identical" to the embodiment taught in FIG. 1. See, respectively, column 4, lines 11-14 regarding the teaching of FIG. 2; column 4, lines 15-17 regarding the teaching of FIG. 3; and column 5, lines 1-11 regarding the teaching of FIG. 4.

Therefore, Saur only teaches two separate and independent electrical circuits.

The invention as presently recited in amended claim 1 is a snap-action thermal switch having a pair of mutually electrically isolated contacts controlled by a thermal actuator. A resistance element is coupled to an output of the thermal switch on the pair of contacts, the resistance element being physically spaced away from the thermal actuator.

The invention recited in claim 1 is distinguished from Saur by reciting a resistive conductor coupled to the contacts of the thermal switch so that a single circuit is operated independently by either the thermal actuator or the resistance element.

In contrast, Saur teaches two separate and independent electrical circuits in a single switch housing 1. Column 4, line 56-column 5, line 11.

Because Saur teaches having the semiconductor element 31 coupled as a second independent switch on a second "separate electrical circuit," the semiconductor element 31 inherently cannot be coupled to an output of the first switch.

Furthermore, the invention recited in claim 1 is distinguished from Saur by reciting a resistive conductor coupled to an output of the snap-action thermal switch. In contrast, Saur teaches only a second switch, *i.e.* semiconductor element 31.

For at least the above reasons, claim 1 is believed to be allowable over Saur.

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Claims 2-6 are allowable at least as depending from allowable claim 1.

Claim 7 is different in scope from allowable claim 1. However, the above arguments directed to claim 1 are sufficiently applicable to claim 7 as to make repetition unnecessary. Thus, for each of the reasons above, claim 7 is believed to be allowable over Saur.

Claims 8-13 are allowable at least as depending from allowable claim 7.

Claim 17 is cancelled, whereby the rejection is made moot.

Claim 20 recites a three-terminal snap-action thermal switch wherein all three terminals are mutually electrically isolated as well as being electrically isolated from a header in which they are mounted. A moveable contact between first and second terminals is operated by a bimetallic actuator, while a an electrically resistive element is coupled between the third electrical terminal and one of the first and second electrical terminals. The resistive element is spaced away from the actuator.

The invention recited in claim 20 is distinguished from Saur by reciting three terminals that are all electrically isolated from a header in which they are mounted. In contrast, Saur teaches a switch having only two terminals wherein the switch body operates as the third common terminal. See, e.g., column 2, line 49-column 3, line 51; and column 4, line 56-column 5, line 11.

Therefore, Saur fails to teach a switch having three terminals that are all electrically isolated from a header in which they are mounted, as recited in claim 20.

Claims 21-23 are allowable at least as depending from allowable claim 20.

Claims 24-27 are cancelled, whereby the rejection is made moot.

Claims 7 and 8 were rejected in the parent application under 35 USC § 102(b) as being anticipated by US Patent 5,337,036 to Kuczynski.

The invention recited in claim 7 is patentable over Kuczynski which teaches a thermostat **210** having a resistance type heating element **210a** wrapped about the thermostat **210** in close proximity to the actuator element so that the heating element **210a** can be operated to supply or augment heat to maintain the actuator element in an open condition to prevent it resetting too quickly. See, Figures 23 and 24 as described at column 13, line 59 - column 14, line 48.

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The invention as presently recited in claim 7 is a thermal sensor having an electrical resistor spaced away from the switch's actuator. In contrast, the Kuczynski device will not operate as intended if the heating element **210a** is spaced away from the actuator element. Rather, according to Kuczynski, the heating element **210a** must be in intimate proximity to the actuator element in order to supply or augment heat to the actuator element as required by the function.

Therefore claim 7 is believed to be allowable over Kuczynski as reciting an electrical resistor that is spaced away from the actuator.

Claim 8 is believed to be allowable as depending from allowable claim 7.

While claim 1 was not rejected over Kuczynski, claim 1 is believed to be allowable over Kuczynski. Claim 1 is different in scope from allowable claim 7. However, the above arguments directed to claim 7 are sufficiently applicable to claim 1 as to make repetition unnecessary. Thus, for each of the reasons above, claim 1 is believed to be allowable over Kuczynski.

Claims 2-6 are allowable at least as depending from allowable claim 1.

#### Claim Rejections Under 35 USC § 103

Claims 9-12 were rejected under 35 USC § 103(a) over Kuczynski.

Claims 9-12 depend from base claim 7.

Claim 7 recites an electrical resistor spaced away from the actuator. In contrast, Kuczynski teaches a resistance type heating element **210a** wrapped about the thermostat **210** in close proximity to the actuator element, whereby the heating element **210a** is operated to supply or augment heat to maintain the actuator element to prevent it resetting too quickly. See, Figures 23 and 24 as described at column 13, line 59 - column 14, line 48.

Kuczynski thus fails to disclose or suggest an electrical resistor that is spaced away from the actuator, as recited in claim 7. Rather, by teaching the heating element **210a** wrapped about the thermostat **210** in close proximity to the actuator element to actually heat the actuator element wherein the device will not function as intended unless the heating element **210a** is in close proximity to the actuator element, Kuczynski clearly teaches away from an electrical resistor that is spaced away from the actuator, as recited in claim 7.

For at least the above reasons, claim 7 is believed to be allowable over Kuczynski.

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Claims 8-13 are allowable at least as depending from allowable claim 7.

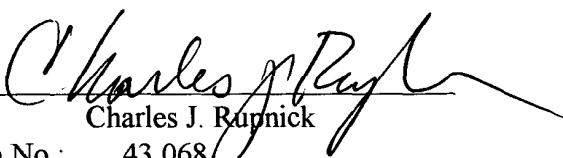
While claim 1 was not rejected over Kuczynski, claim 1 is believed to be allowable over Kuczynski. Claim 1 is different in scope from allowable claim 7. However, the above arguments directed to claim 7 are sufficiently applicable to claim 1 as to make repetition unnecessary. Thus, at least because Kuczynski fails to disclose or suggest, and even teaches away from a resistance element being physically spaced away from the thermal actuator, claim 1 is believed to be allowable over Kuczynski.

Claims 2-6 are allowable at least as depending from allowable claim 1.

The claims now being in form for allowance, reconsideration and allowance is respectfully requested.

If the Examiner has questions or wishes to discuss any aspect of the case, the Examiner is encouraged to contact the undersigned at the telephone number given below.

Respectfully submitted,

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